

## Product datasheet for **MG224551**

### Prmt1 (NM\_019830) Mouse Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Prmt1 (NM\_019830) Mouse Tagged ORF Clone  
**Tag:** TurboGFP  
**Symbol:** Prmt1  
**Synonyms:** 6720434D09Rik; AW214366; Hrmt1I2; Mrmt1  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC-GFP (PS100010)  
**E. coli Selection:** Ampicillin (100 ug/mL)  
**ORF Nucleotide Sequence:** >MG224551 representing NM\_019830  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCGGCAGCCGAGGCCGCGAACTGCATCATGGAGAATTTGTAGCCACCTTGGCTAATGGGATGAGCC  
TCCAGCCGCTCTTGAAGAAGTTTCTGTGGCCAAGCAGAAAGTAGTGAGAAGCCCAACGCTGAGGACAT  
GACATCCAAGACTACTTTGACTCCTATGCCCACTTTGGCATCCACGAGGAGATGCTGAAGGATGAG  
GTGCGCACCTCACATACCGCACTCCATGTTTACAATCGGCATCTCTCAAAGACAAGGTGGTGTGG  
ATGTGGGCTCAGGCACTGGCATCTCTGCATGTTTGTGCAAGCGGGGCCCGCAAGGTTATTGGGAT  
TGAGTGTCCAGTATCTCCGATTATGCTGTGAAGATTGTCAAAGCCAACAAGTTAGACCATGTGGTGACC  
ATCATCAAGGGCAAGGTGGAGGAGGTGGAGCTGCCCGTGGAGAAGGTGGACATCATCATCAGCGAGTGGA  
TGGGTTACTGCCTCTTCTACGAGTCCATGCTCAACACCGTGTGCACGCTCGGGACAAGTGGCTGGCACC  
CGATGGCCTCATCTTCCAGACCGGGCCACCTTGATGTGACAGCCATTGAGGACCGACAATATAAAGAC  
TACAAGATCCACTGGTGGGAGAACGTGTATGGCTTTGATGTCTGCATTAAAGACGTGGCCATCAAGG  
AGCCCCGGTGGACGTGGTGGACCCAAAGCAGCTGGTCAACAATGCCTGCCTCATAAAGGAGGTGGACAT  
CTACACAGTCAAGGTGGAGGACCTGACCTTACCTCCCCCTTCTGCCTGCAAGTGAAGAGGAACGACTAC  
GTGCACGCGCTGGTGGCTTACTTCAACATCGAGTTCACCCGATGCCACAAGAGGACCGGCTTCTCCACCA  
GTCTGAGTCCCCGTACACACACTGGAAGCAGACTGTGTTCTACATGGAGGACTACCTAACAGTGAAGAC  
TGGCGAGGAGATCTTTGGCACCATTGGAATGAGGCCCAATGCCAAAAACAATCGTGACTTGGACTTTACC  
ATCGACCTGGACTTCAAGGGTCAGCTGTGTGAGCTCTCTTGTCCACCGACTACCGGATGCGC

**ACCGGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >MG224551 representing NM\_019830  
 Red=Cloning site Green=Tags(s)

MAAAEAANCIMENFVATLANGMSLQPPLLEEVSCGQAESSEKPNaedMTSKDYyFDSYAHFGIHEEmLKDE  
 VRTLTYRNSMFHNRHLFKDKVVLdVGSgtGILCMFAAKAGARKVIGIECSISDYAVKIVKANKLDHVVT  
 IIKGKVEEVELPVEKVDIIISEWmgYCLFYESMLNTVLHARDKWLAPDGLIFPDRATLYVTAIEDRQYKD  
 YKIHWWENVYGFDMSCIKDVAIKEPLVDVDPKQLVTNAclIKEVDIYTVKVEDLFTSPFCLQVKRNDY  
 VHALVAYFNIEFTRCHKRTGFSTSPESpyTHWkQTvfYMEDyLTVKTGEEIFGTIGMRPNakNNRDLDFt  
 IDLDFKGLqLCELSCSTDYRMR

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_019830

**ORF Size:** 1113 bp

**OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

**Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

**Reconstitution Method:**

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

**RefSeq:** [NM\\_019830.3](#), [NP\\_062804.1](#)

**RefSeq Size:** 1379 bp

**RefSeq ORF:** 1116 bp

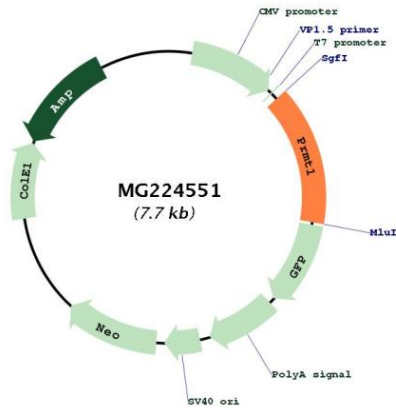
**Locus ID:** 15469

**UniProt ID:** [Q9JIF0](#)

**Cytogenetics:** 7 29.07 cM

**Gene Summary:** Arginine methyltransferase that methylates (mono and asymmetric dimethylation) the guanidino nitrogens of arginyl residues present in proteins such as ESR1, histone H2, H3 and H4, ILF3, HNRNPA1, HNRNPD, NFATC2IP, SUPT5H, TAF15, EWS, HABP4 and SERBP1 (PubMed:15327772, PubMed:19858291). Constitutes the main enzyme that mediates monomethylation and asymmetric dimethylation of histone H4 'Arg-4' (H4R3me1 and H4R3me2a, respectively), a specific tag for epigenetic transcriptional activation (By similarity). Methylates H4R3 in genes involved in glioblastomagenesis in a CHTOP- and/or TET1-dependent manner (By similarity). May be involved in the regulation of TAF15 transcriptional activity, act as an activator of estrogen receptor (ER)-mediated transactivation, play a key role in neurite outgrowth and act as a negative regulator of megakaryocytic differentiation, by modulating p38 MAPK pathway (By similarity). Methylates RBM15, promoting ubiquitination and degradation of RBM15 (By similarity). Methylates CHTOP and this methylation is critical for its 5-hydroxymethylcytosine (5hmC)-binding activity (PubMed:19858291). [UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MG224551